

LEAD BASED PAINT INSPECTION AND RISK ASSESSMENT RE-EVALUATION REPORT

**Forest Service Dwelling
Corner of Osmond and Van Noy
Thayne, Wyoming 83127**

November 12, 2009

Nova Project No.: U09-1996



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**LEAD BASED PAINT INSPECTION AND RISK ASSESSMENT
RE-EVALUATION**

**FOREST SERVICE DWELLING
CORNER OF OSMOND AND VAN NOY
THAYNE, WYOMING 83127**

NOVA PROJECT NO.: U09-1996

NOVEMBER 12, 2009

Prepared for:

**MR. WAYNE CLAYTON
USDA FOREST SERVICE
BRIDGER-TETON NATIONAL FOREST
PO BOX 1888
340 NORTH CACHE
JACKSON, WYOMING 83901
(307) 739-5445**

Prepared by:

**MR. KEVIN C. ORR
NOVA CONSULTING GROUP, INC.
141 EAST 5600 SOUTH, SUITE 200
MURRAY, UT 84107
(801) 261-4616**

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1.0 INTRODUCTION

Nova Consulting Group, Inc. (Nova) conducted a lead-based paint (LBP) inspection and a risk assessment re-evaluation at the Forest Service Dwelling located at the corner of Osmond and Van Noy, Thayne, Wyoming for the USDA Forest Service. The property inspected is a one-story home consisting of approximately 1,600 square feet. It was determined that the home was constructed in 1955. The dwelling is currently vacant. Nova's re-evaluation included all areas of the dwelling.

The re-evaluation was conducted by a Certified Lead Inspector / Risk Assessor Mr. Kevin C. Orr (License No.: 1135) with Nova Consulting Group, Inc. (Nova) Utah Lead Licensed firm (PBF-0054) on October 25, 2009.

Summary of Findings of the original Lead-Based Paint Inspection

Deteriorated lead-based paint over the action level of 1.0 milligram per square centimeter (mg/cm^2) was previously detected on the following components:

- Green wood door jamb located in the Living room- Intact
- Green wood door jamb located in the Garage- Intact
- White wood walls located on the exterior- Fair condition
- Green wood window frames on the exterior- Fair condition
- Green wood trim located on the exterior- Fair condition
- White wood soffitt located on the exterior- Fair condition
- White wood door located on the Garage- Fair condition

Results of wipe sampling collected from the Living Room floor identified 19 micrograms per square foot ($\mu\text{g}/\text{ft}^2$). Results of the wipe sample from the Kitchen floor identified 21 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Bedroom 1 floor identified $<10 \mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Living Room window sil identified 30 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Kitchen window sil identified 51 $\mu\text{g}/\text{ft}^2$. HUD states

that dust samples over 40 for floors, 250 for window sills, and 400 for window troughs indicate a potential lead dust hazard.

Results of composite soil sample identified 400 parts per million (ppm). HUD states that lead in bare soil over 1,200 ppm or over 400 ppm in play areas indicates a potential lead hazard.

All of the previously identified lead-based paint remains in the dwelling. Results of the re-evaluation are as follows:

- Green wood door jamb located in the Living room- Intact
- Green wood door jamb located in the Garage- Intact
- White wood walls located on the exterior- Poor condition
- Green wood window frames on the exterior- Poor condition
- Green wood trim located on the exterior- Poor condition
- White wood soffitt located on the exterior- Poor condition
- White wood door located on the Garage- Poor condition

Results of wipe sampling collected from the Living Room floor identified <10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$). Results of the wipe sample from the Kitchen floor identified <10 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Bedroom 1 floor identified <10 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Living Room window sill identified <12 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Kitchen window sill identified <12 $\mu\text{g}/\text{ft}^2$. HUD states that dust samples over 40 for floors, 250 for window sills, and 400 for window troughs indicate a potential lead dust hazard.

Results of composite soil sample identified 1,100 parts per million (ppm). HUD states that lead in bare soil over 1,200 ppm or over 400 ppm in play areas indicates a potential lead hazard.

It should be noted that the lead-based paint identified on the exterior of the dwelling has changed from fair condition to poor condition and the composite soil sample went from 400 to 1,100 ppm..

2.0 TESTING PROCEDURES

Although no children under the age of six occupy the facility, wipe samples were collected using Ghost Wipes. An area of 1.0 square feet was wiped using ASTM protocols. The wipes were sent to EMSL Analytical Inc. in Westmont, New Jersey (ELLAP Lab No.100194). Results are presented in micrograms per square foot ($\mu\text{g}/\text{ft}^2$).

Although no children under the age of six occupy the facility, a composite soil sample was collected from the bare soil around the residence. Four (4) sampling locations were collected using a shallow auger tool. These four locations were combined as a composite sample. The top 6 inches of soil were collected and sent to EMSL Analytical Inc. in Westmont, New Jersey (ELLAP Lab No. 100194). Results are presented in parts per million (ppm).

3.0 DISCUSSION

HUD defines "lead-based paint" as any coating that has a lead concentration of 1.0 milligram of lead per square centimeter (1.0 mg/cm^2) or greater, or if the lead concentration is greater than 0.5% by weight. The Consumer Product Safety Commission (CPSC) currently considers paint to be lead-containing if the concentration of lead exceeds 600 ppm (0.06% by weight). In 1978, the CPSC banned the sale of lead-based paint to consumers, and banned its application in areas where consumers have direct access to painted surfaces. Both the CPSC and HUD definitions of lead-containing paint are aimed at protecting the general population from exposure to lead in the residential setting. By contrast, the mission of the Occupational Safety and Health Administration (OSHA) with respect to lead-containing paint, is to protect workers during construction activities that may generate elevated airborne lead concentrations. OSHA states that construction work (including renovation, maintenance, and demolition) carried-out on structures coated with paint have lead concentrations lower than the HUD or CPSC can still result in airborne lead concentrations in excess of regulatory limits. For this reason,

The Wyoming Division of Air Quality regulates lead-based paint abatement in the State of Wyoming. Prior to conducting LBP abatement, a contractor must be licensed with the WDAQ and must comply with the work practices established by the WDAQ.

The Wyoming Department of Solid and Hazardous Waste (WDSHW) regulates the disposal of hazardous materials in Wyoming. The WDSHW has stated that components removed intact with LBP are considered demolition debris and therefore, exempt from the hazardous waste requirements. However, if the LBP is stripped from the components, the waste may be subject to the hazardous waste rules.

4.0 FINDINGS AND CONCLUSIONS

Deteriorated lead-based paint over the action level of 1.0 milligram per square centimeter (mg/cm²) was previously detected on the following components:

- Green wood door jamb located in the Living room- Intact
- Green wood door jamb located in the Garage- Intact
- White wood walls located on the exterior- Fair condition
- Green wood window frames on the exterior- Fair condition
- Green wood trim located on the exterior- Fair condition
- White wood soffitt located on the exterior- Fair condition
- White wood door located on the Garage- Fair condition

Results of wipe sampling collected from the Living Room floor identified 19 micrograms per square foot (µg/ft²). Results of the wipe sample from the Kitchen floor identified 21 µg/ft². Results of the wipe sample from the Bedroom 1 floor identified <10 µg/ft². Results of the wipe sample from the Living Room window sil identified 30 µg/ft². Results of the wipe sample from the Kitchen window sil identified 51 µg/ft². HUD states that dust samples over 40 for floors, 250 for window sils, and 400 for window troughs indicate a potential lead dust hazard.

Results of composite soil sample identified 400 parts per million (ppm). HUD states that lead in bare soil over 1,200 ppm or over 400 ppm in play areas indicates a potential lead hazard.

All of the lead-based paint identified remains on the dwelling. Results of the re-evaluation are as follows:

- Green wood door jamb located in the Living room- Intacted
- Green wood door jamb located in the Garage- Intacted

-
- White wood walls located on the exterior- Poor condition
 - Green wood window frames on the exterior- Poor condition
 - Green wood trim located on the exterior- Poor condition
 - White wood soffitt located on the exterior- Poor condition
 - White wood door located on the Garage- Poor condition

Results of wipe sampling collected from the Living Room floor identified <10 micrograms per square foot ($\mu\text{g}/\text{ft}^2$). Results of the wipe sample from the Kitchen floor identified <10 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Bedroom 1 floor identified <10 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Living Room window sil identified <12 $\mu\text{g}/\text{ft}^2$. Results of the wipe sample from the Kitchen window sil identified <12 $\mu\text{g}/\text{ft}^2$. HUD states that dust samples over 40 for floors, 250 for window sils, and 400 for window troughs indicate a potential lead dust hazard.

Results of composite soil sample identified 1,100 parts per million (ppm). HUD states that lead in bare soil over 1,200 ppm or over 400 ppm in play areas indicates a potential lead hazard.

It should be noted that the lead-based paint identified on the exterior of the dwelling has changed from fair condition to poor condition and the composite soil sample went from 400 to 1,100 ppm..

5.0 RECOMMENDATIONS

OSHA has not defined lead-containing paint, but states that paint having any measurable level of lead may pose a substantial exposure hazard during construction work, depending upon the work performed.

In addition to the above considerations, the presence of lead in demolition debris has the potential to impose limitations on where and how the debris may be disposed. The Resource Conservation and Recovery Act (RCRA), Subtitles C and D, require that the waste must be analyzed to determine the amount of leachable lead present. The type of test to be performed on the waste is the Toxicity Characteristic Leaching Procedure (TCLP) for lead, and the results of this test will determine whether the material must be handled and disposed of as hazardous waste. For structures containing large amounts of lead-containing paint, significant potential for failing the TCLP exists.

Nova recommends that due to the increased levels of the lead paint in the soil, the exterior paint on the wood walls, windows, trim, and soffits should be removed by a State of Wyoming licensed contractor.

Any interior lead-based surfaces being disturbed by renovations or demolition should be conducted by a Wyoming licensed lead abatement contractor. Lead contaminated waste should be TCLP for disposal. Air and wipe clearance sampling should be conducted by a Wyoming licensed firm. Also an abatement scope of work should be produced for the removal of lead-based paint in the residence.

6.0 STANDARD OF CARE

The services performed by Nova Consulting Group, Inc. on this project have been conducted with that level of care and skill ordinarily exercised by reputable members of the profession, practicing in the same locality, under similar budget and time constraints. No other warranty is expressed or intended.

If you have any questions or comments, please contact us at (801) 261-4616.

Prepared by:

NOVA CONSULTING GROUP, INC.



Kevin C. Orr
Lead Inspector/Risk Assessor



Paul Johnson, CIH
VP, Director of Operations

APPENDIX A

LABORATORY RESULTS / CHAIN OF CUSTODY FORMS



EMSL Analytical, Inc.

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-9551 Email: westmontleadlab@emsl.com

Attn: **Kevin C. Orr**
Nova Consulting Group, Inc.
141 East 5600 South
Suite 200
Murray, UT 84107

Customer ID: NOVA52E
Customer PO:
Received: 10/27/09 10:50 AM
EMSL Order: 200915482

Fax: (801) 261-4561 Phone: (801) 261-4616
Project: USDA Forest Service - Thayne Dwelling / U09-1996

EMSL Proj:

Test Report: Lead in Soils by Flame AAS (SW 846 3050B*/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Lead Concentration</i>
USDA-TH-LW-6	0006	10/26/2009	10/30/2009	1100 mg/Kg
Composite Soil				

Shannon Kauffman, Lead Lab Supervisor
or other approved signatory

Reporting limit is 40 mg/kg. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ NJ-NELAP 04653, AIHA ELLAP 100194

**EMSL Analytical, Inc.**

3 Cooper St., Westmont, NJ 08108

Phone: (856) 858-4800 Fax: (856) 858-9551 Email: westmontleadlab@emsl.com

Attn: **Kevin C. Orr**
Nova Consulting Group, Inc.
141 East 5600 South
Suite 200
Murray, UT 84107

Customer ID: NOVA52E
Customer PO:
Received: 10/27/09 10:50 AM
EMSL Order: 200915482

Fax: (801) 261-4561 Phone: (801) 261-4616
Project: USDA Forest Service - Thayne Dwelling / U09-1996

EMSL Proj:

Test Report: Lead in Dust by Flame AAS (SW 846 3050B*/7000B)

<i>Client Sample Description</i>	<i>Lab ID</i>	<i>Collected</i>	<i>Analyzed</i>	<i>Area Sampled</i>	<i>Lead Concentration</i>
USDA-TH-LW-1	0001	10/26/2009	11/3/2009	144 in ²	<10 µg/ft ²
Living Room Floor					
USDA-TH-LW-2	0002	10/26/2009	11/3/2009	144 in ²	<10 µg/ft ²
Kitchen Floor					
USDA-TH-LW-3	0003	10/26/2009	11/3/2009	144 in ²	<10 µg/ft ²
Bedroom 1 Floor					
USDA-TH-LW-4	0004	10/26/2009	11/3/2009	120 in ²	<12 µg/ft ²
Living Rom Window Sill					
USDA-TH-LW-5	0005	10/26/2009	11/3/2009	120 in ²	<12 µg/ft ²
Kitchen Window Sill					

Shannon Kauffman, Lead Lab Supervisor
or other approved signatory

Reporting limit is 10 ug/wipe. The QC data associated with these sample results included in this report meet the method quality control requirements, unless specifically indicated otherwise. Unless noted, results in this report are not blank corrected. This report relates only to the samples reported above and may not be reproduced, except in full, without written approval by EMSL. EMSL bears no responsibility for sample collection activities.

* slight modifications to methods applied Samples received in good condition unless otherwise noted. Quality Control Data associated with this sample set is within acceptable limits, unless otherwise noted

Samples analyzed by EMSL Analytical, Inc. Westmont 3 Cooper St., Westmont NJ NJ-NELAP 04653, AIHA ELLAP 100194

200915482



Chain of Custody

Lead Lab Services

EMSL Analytical, Inc.
3 Cooper Street
Westmont, NJ 08108

Phone: (856) 858-4800

Fax: (856) 858-3899

http://www.emsl.com

Please print all information legibly.

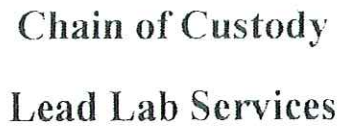
Company:	Nova Consulting Group	Bill To:	Nova Consulting Group
Address1:	141 East 5600 South, Suite 200	Address1:	1107 Hazeltine Boulevard, Suite 400
Address2:		Address2:	
City, State:	Murray, Utah	City, State:	Chaska, Minnesota
Zip/Post Code:	84107	Zip/Post Code:	55318
Country:	USA	Country:	USA
Contact Name:	Kevin C. Orr	Attn:	Sue Jacobson
Phone:	801-261-4616	Phone:	952-361-8681
Fax:	801-261-4561	Fax:	952-448-9572
Email:	kevin.orr@novaconsulting.com	Email:	sue.jacobson@novaconsulting.com
EMSL Rep:		P.O. Number:	
Project Name/Number: USDA Forest Service - Thayne Dwelling / URG-1996			

MATRIX	METHOD	INSTRUMENT	RL (Reporting Limit)	TAT
Lead Chips*	SW846-7420, 3050B Mod./AOAC(974.02)	Flame Atomic Absorption	0.01% ++	
Lead WasteWater	SW846-7420	Flame Atomic Absorption	0.4 mg/l water 40 mg/kg (ppm) soil	5 day
Lead Soil +	or SW846-6010B	ICP	0.1 mg/l water 10 mg/kg (ppm) soil	5 day
Lead in Air ***	NIOSH 7082 Mod.	Flame Atomic Absorption	4 ug/filter	
	or NIOSH 7300 Mod	ICP	3.0 ug/filter	
Lead in Wipe^ <input checked="" type="checkbox"/> ASTM List Wipe Type <input checked="" type="checkbox"/> -non ASTM	SW846-7420 / HUD Appendix 14.2 Digest	Flame Atomic Absorption	10 ug/wipe	5 day
	or SW846-6010B	ICP	3.0 ug/wipe	
TCLP Lead **	SW846-1311/ 7420	Flame Atomic Absorption	0.4 mg/l (ppm)	2009 OCT 27
	or SW846-6010B	ICP	0.1 mg/l (ppm)	
STLC Lead (California) #	CA Title 22 66261.126 SW846-7420	Flame Atomic Absorption	0.4 mg/l (ppm)	
	or SW846-6010B	ICP	0.1 mg/l (ppm)	
Lead in Air ****	NIOSH 7105 Mod.	Graphite Furnace Atomic Absorption	0.03 ug/filter	
Lead WasteWater	SW846-7421	Graphite Furnace Atomic Absorption	0.003 mg/l (ppm) water	50
Lead Soil +			0.03 mg/kg (ppm) soil	
Lead in Drinking Water (check state Certification requirements)	EPA 239.2 / 200.9	Graphite Furnace Atomic Absorption	0.003 mg/l (ppm)	
Total Dust	NIOSH 0500-0600	Gravimetric Reduction	0.0001g	

TAT (Turnaround) - Same day, 24 hr - 1 Day, 2 Days, 3 Days, 4 Days, 5 Days, 6-10 Days

* * * * * +, ++ # Please Refer to Price Quote

^ If no box is checked, non-ASTM is assumed



Phone: (856) 858-4800
Fax: (856) 858-3899
<http://www.emsl.com>

[illegible]

Date: 10/29/09

file://C:\Documents and Settings\kevinorr\My Documents\Adobe files\ EMSLLBPCOC.htm 4/4/2008

APPENDIX B
CERTIFICATIONS



The University of Utah

Rocky Mountain Center for
Occupational & Environmental Health
Department of Family & Preventive Medicine
University of Utah
391 Chipeta Way, Suite C
Salt Lake City UT 84108
Phone: (801) 581-4055
Fax: (801) 585-5275

Kevin Orr

Nova Environmental Consulting, Inc. 141 East 5600 South #200 Salt Lake City UT 84107

HAS COMPLETED A COURSE ENTITLED

Lead Inspector Refresher

AND PASSED AN EXAMINATION

DATE: January 22, 2009
EXAM DATE: January 22, 2009
INTERIM EXPIRATION: July 22, 2009
COURSE EXPIRATION: January 22, 2012
CREDIT(S): 0.75 CEUs / 1.0 ABIH CM points
NUMBER: 290100

Terry Bleckner, CIH
Training Manager



The University of Utah

Rocky Mountain Center for
Occupational & Environmental Health
Department of Family & Preventive Medicine
University of Utah
391 Chipeta Way, Suite C
Salt Lake City UT 84108
Phone: (801) 581-4055
Fax: (801) 585-5275

Kevin Orr

Nova Environmental Consulting, Inc. 141 East 5600 South #200 Salt Lake City UT 84107

HAS COMPLETED A COURSE ENTITLED

Lead Risk Assessor Refresher

AND PASSED AN EXAMINATION

DATE: January 23, 2009
EXAM DATE: January 23, 2009
INTERIM EXPIRATION: July 23, 2009
COURSE EXPIRATION: January 23, 2012
CREDIT(S): 0.75 CEUs / 1.0 ABIH CM points
NUMBER: 200113

Terry Bleckner, CIH
Training Manager



State of Utah
Department of
Environmental Quality

Richard W. Sprott
Executive Director

DIVISION OF AIR QUALITY
Cheryl Heying
Director

JON M. HUNTSMAN, JR.
Governor

GARY HERBERT
Lieutenant Governor

December 21, 2007

DAQA-0004-07

Terry Bleckner
Nova Consulting Group, Inc.
141 East 5600 South, #200
Murray, Utah 84107

Dear Mr. Bleckner:

Re: Utah Lead Based Paint Certified Firm #PBF-0054

The Utah Department of Environmental Quality/Division of Air Quality (UDEQ/DAQ) received a Lead-Based Paint (LBP) Certification Application for Firms from Nova Consulting Group, Inc. The purpose of the application is for Nova Consulting Group, Inc. to become certified to perform regulated LBP activities in Utah as defined in Utah Administrative Code (UAC) R307-840.

LBP firm certification is subject to the following conditions:

1. Nova Consulting Group, Inc. shall only employ UDEQ/DAQ certified inspectors, risk assessors, supervisors, abatement workers or project designers to conduct regulated LBP activities in Utah, and,
2. Nova Consulting Group, Inc. and its employees shall follow the Utah work practice standards in UAC R307-840 when conducting regulated LBP activities in Utah, and,
3. Nova Consulting Group, Inc. may have its certification revoked and/or suspended if it is found to be in violation of UAC R307-840.

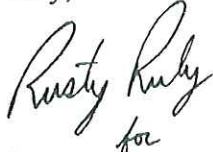
Nova Consulting Group, Inc. is hereby certified as a Utah lead-based paint firm in accordance with the provisions of UAC R307-840 and has been assigned certification number PBF-0054. This certification is valid until December 31, 2009 based on the conditions outlined above. This letter serves as the Certificate of Approval outlined in UAC R307-840.

DAQA-0004-07

Page 2

Questions concerning this certification should be directed to Ann Rosser at (801) 536-4424 or by e-mail at arosser@utah.gov.

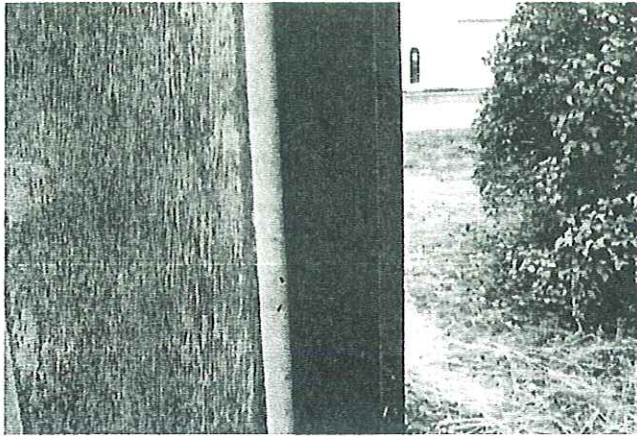
Sincerely,

A handwritten signature in cursive script that reads "Rusty Rudy".

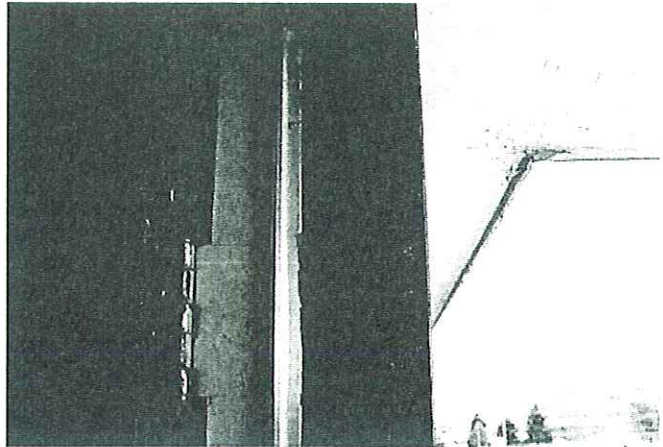
for
M. Cheryl Heying, Executive Secretary
Utah Air Quality Board

MCH:AR:lgt

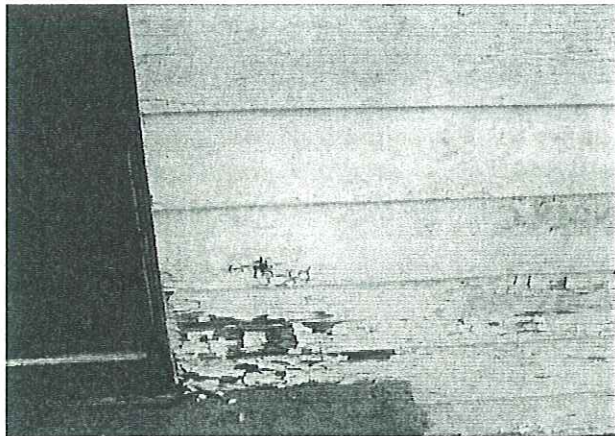
APPENDIX C
PHOTOGRAPHS



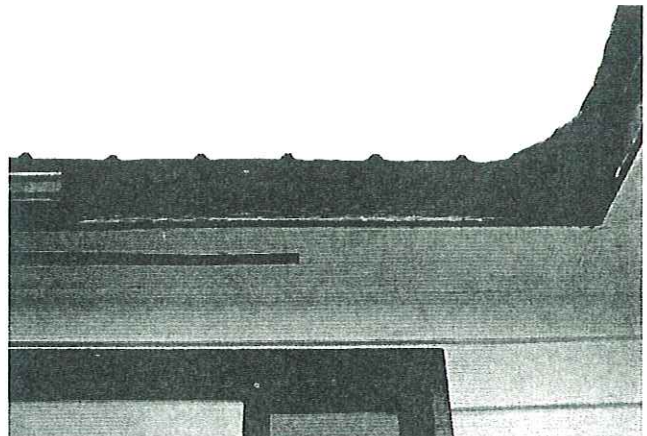
1. Green wood door jamb located in the garage



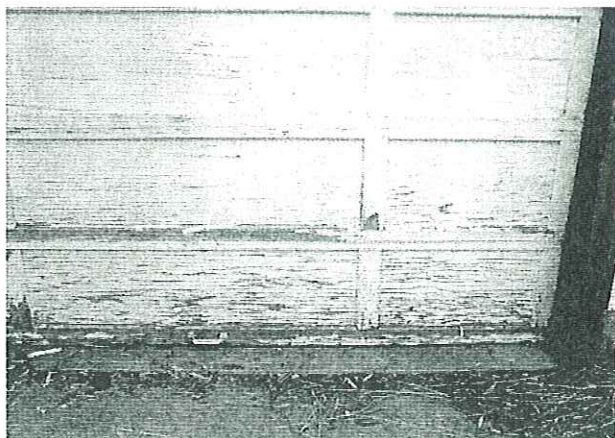
2. Green wood door jamb located in the living room



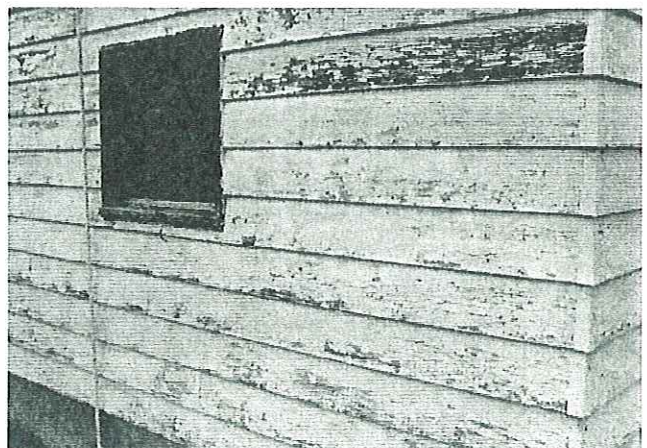
1. White wood wall located on the exterior



2. Green wood trim and white soffit located on the exterior



1. White wood garage door located on the exterior



2. White wood wall located on the exterior